

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

Kouji UNO

Serial No.: 10/678,176

Filed: October 6, 2003

For: CHARGING APPARATUS OF

BICYCLE DYNAMO

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner of Patents Washington, DC 20231

Sir:

In accordance with MPEP 609 and 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicants bring the attached references to the Examiner's attention and request that they be considered and made of record in this application. Also attached is a completed PTO-1449 form. This Information Disclosure Statement is being filed within three (3) months of the filing date of this application. Thus, *no fee is believed to be due for this Information Disclosure*Statement. However, the Commissioner is authorized to charge any fees associated with this communication or credit any overpayment to Deposit Account No. 50-1836. A duplicate copy of this Statement is enclosed for that purpose.

Japanese Patent Publication Number 2002-262473 discloses a voltage doubler rectifying circuit with a protective circuit 11 which reduces a reverse voltage to be applied to an electrolytic capacitor when a power switch is closed in a positive half cycle of the a.c. supply voltage. The protective circuit 11 is connected in parallel to an electrolytic capacitor, and uses a diode. When a power switch 9 is closed at the t0 point, a peak of the a.c. supply voltage 'v' in a positive half cycle, the diode of the protective circuit 11 and a diode 3 come to the conduction state and then charging current flows in a second capacitor 4. At that time,

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the electrolytic capacitor 1 gets shortened due to the diode of the protective circuit 11 which is caused to conduct due to the positive a.c. supply voltage. Therefore, a reverse voltage to be applied to the electrolytic capacitor 1 is controlled to -VF which corresponds to a forward voltage of the diode 11.

Prompt examination on the merits is respectfully requested.

Respectfully submitted,

Reg. No. 32,383

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Dated: _ 1(-71-03

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

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Sheet	1	of	1

ADEMAN	Complete if Known	
Application Number	10/678,176	-
Filing Date	October 6, 2003	
First Named Inventor	Kouji UNO	
Group Art Unit		
Examiner Name		
Attorney Docket Number	SN-US035127	

U.S. PATENT DOCUMENTS							
Examiner Initials *		U.S. Patent Document		Name of Patentee or Applicant	Date of Publication of Cited Document		
	Cite No.	Number	Kind Code (if known)	Name of Patentee or Applicant of Cited Document	MM-YYYY		
			 				
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FOREIGN PATENT DOCUMENTS							
Examiner Initials*		Foreign Patent Document			Name of Patentee or Applicant of	Date of Publication	Translation
		Cite No.	Office	Number	Kind Code (if_known)	Cited Document	of Cited Document MM-YYYY
		JP	2002-262473	A	Shimano Inc.	09-2002	
•		JP	5-252745	Α	Fuji Electric co. Ltd.	09-1993	
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Examiner Signature	Date Considered	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, Washington, DC 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Assistant Commissioner for Patents, Washington, DC 20231.